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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/779,725	02/08/2001	Ian R. McLean	60,426-258;2000P07583US01	4400

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EXAMINER

CHAU, COREY P

ART UNIT PAPER NUMBER

2644

DATE MAILED: 04/09/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/779,725

Applicant(s)

MCLEAN, IAN R.

Examiner

Corey P Chau

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 February 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☒ Claim(s) 2-8 and 10-15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4, 6, 7, and 8.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 2-8 are objected to because of the following informalities: the preamble of Claims 2-8, "active noise attenuation system" is inconsistent with the preamble of Claim 1, "noise attenuation system". Appropriate correction is required.
2. Claims 10-15 are objected to because of the following informalities: the preamble of Claims 10-15, "active noise attenuation system" is inconsistent with the preamble of Claim 9, "air induction system". Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2, 3, 4, 6, 7, 8, 9, 10, 11, 13, 14, 15, 16, 17, 18, 19, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5571239 to Kameda et al. (hereafter as Kameda).
5. Regarding Claim 1, Kameda discloses a noise control apparatus comprising a speaker (18); a control unit (15,16) in communication with said speaker (18); and a memory unit (16b) in communication with said control unit (15,16) storing a cancellation waveform (abstract; Figs. 1 and 2) related to a system condition wherein said control

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unit has a plurality of scaling factors to modify said cancellation waveform (Figs. 4A and 4B; column 5, lines 42-60).

6. Regarding Claim 2, Kameda discloses the system condition is an engine data (abstract; Figs. 1 and 2; column 4, lines 56-64; column 5, line 16 to column 6, line 2; claim 1).

7. Regarding Claim 3, Kameda discloses the engine data is an engine speed (abstract; Figs. 1 and 2, reference 14; column 4, lines 56-64; column 5, line 16 to column 6, line 2; claim 1).

8. Regarding Claim 4, Kameda discloses at least one sensor (12,13,14) in communication with said control unit (Fig. 2).

9. Regarding Claim 6, Kameda discloses throttle position sensor and said control unit is programmed to select a scaling factor from said plurality of scaling factors based on data from said throttle position sensor (column 9, lines 43-57).

10. Regarding Claim 7, Kameda discloses an environmental sensor (abstract; Figs. 1 and 2, reference 13; column 4, lines 56-64; column 5, line 16 to column 6, line 2; claim 1).

11. Regarding Claim 8, Kameda discloses the speaker (18) disposed as part of an air induction system (Fig. 1; column 5, lines 16-41).

12. Regarding Claim 9, Kameda discloses a noise control apparatus for internal combustion engine comprising an air duct body (Fig. 1) having a speaker (18); a control unit (15,16) in communication with said speaker (18); a memory unit (16b) in communication with said control unit (15,16) storing cancellation waveform (abstract;

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Figs. 1 and 2) data wherein said cancellation waveform data comprises at least one cancellation waveform related with engine data (abstract; Figs. 1 and 2; column 4, lines 56-64; column 5, line 16 to column 6, line 2; claim 1).

13. Regarding Claim 10, Kameda disclose the engine data relates to engine speed (abstract; Figs. 1 and 2, reference 14; column 4, lines 56-64; column 5, line 16 to column 6, line 2; claim 1).

14. Regarding Claim 11, Kameda discloses at least one sensor (12,13,14) in communication with said control unit (Fig. 2).

15. Regarding Claim 13, Kameda discloses a throttle position sensor (column 9, lines 43-57).

16. Regarding Claim 14, Kameda discloses an environmental sensor (abstract; Figs. 1 and 2, reference 13; column 4, lines 56-64; column 5, line 16 to column 6, line 2; claim 1).

17. Regarding Claim 15, Kameda discloses the speaker (18) is disposed about an air induction system (Fig. 1; column 5, lines 16-41).

18. Regarding Claim 16, Kameda discloses storing in memory (16b) at least one cancellation waveform; retrieving the cancellation waveform needed to attenuate a noise based upon a sensed engine condition; and attenuating the noise using the cancellation waveform (abstract; column 5, line 32 to column 6, line 2).

19. Regarding Claim 17, Kameda discloses the noise relates to engine noise (abstract).

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20. Regarding Claim 18, Kameda discloses at least one cancellation waveform is related with engine speed and is retrieved and used to attenuate the noise (abstract; Figs. 1 and 2; column 4, lines 56-64; column 5, line 16 to column 6, line 2; claim 1).

21. Claim 19 is essentially similar to Claim 9 and is rejected for the reasons stated above apropos to Claim 9.

22. All elements of Claim 20 are comprehended by Claim 1. Claim 20 is rejected for reasons stated above apropos of Claim 1.

Claim Rejections - 35 USC § 103

23. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

24. Claims 5 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5571239 to Kameda in view of U.S. Patent No. 5677960 to Unno et al. (hereafter as Unno).

25. Regarding Claim 5, Kameda discloses an engine speed sensor, but only generally; no specific hardware or software is taught. Therefore it would have been obvious to one of ordinary skill in the art to seek known engine speed sensor. Unno for example discloses a tachometer for indicating the engine speed of a vehicle (Claim 10). It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ any known engine speed sensor, such as that of Unno.

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Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the noise control apparatus for internal combustion engine of Kameda with the teaching of Unno to utilize a tachometer in order to obtain an engine speed.


26. Claim 12 is essentially similar to Claim 5 and is rejected for the reasons stated above apropos of Claim 5.

Conclusion

27. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Corey P Chau whose telephone number is (703)305-0683. The examiner can normally be reached on Monday - Friday 9:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W Isen can be reached on (703)305-4386. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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April 5, 2004